Geomodel 2015 - 17th Scientific-Practical Conference on Oil and Gas Geological Exploration and Development, 2015, pages 116-120

Intensification of oil production under vibration impact on the producing formation

Marfin E., Kravtsov Y., Abdrashitov A., Metelev I.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Improving the efficiency of oil field development is possible due to the intensification of oil production by a vibrating impact on producing formation. Numerous laboratory and field research confirm this. Intensification of oil production is due to the many phenomena occurring in the productive strata at imposing elastic vibrations. Selecting the desired frequency of formation stimulation in this case is one of the important issues. The essence of the proposed idea is that the frequency of vibrating influence should be chosen close to the natural frequencies of noise filtration of producing formation. This paper investigates the spectra of noise filtration of samples of artificial and natural porous media. We present some results of the impact of elastic vibrations on the producing formation. It is shown that a greater effect in the oil production achieved at frequencies close to the frequency of noise filtration.